

## Montana Board of Oil and Gas Conservation Environmental Assessment

**Operator:** Bill Barrett Corporation  
**Well Name/Number:** Simmes Ranch 21-13-36-3W H  
**Location:** NE NW Section 13 T36N R3W  
**County:** Toole, MT; Field (or Wildcat) Wildcat

### Air Quality

(possible concerns)

Long drilling time: No, 10-20 days drilling time.

Unusually deep drilling (high horsepower rig): Yes, single or double derrick drilling rig, 600-900 HP to drill a vertical pilot hole to 3664' into the Duperow Formation. Well will be logged and plugged back to 2300' and kickoff and drill a single lateral horizontal Banff Sand Formation well test, 3082'TVD/7596' MD.

Possible H<sub>2</sub>S gas production: Yes possible from Mississippian and Duperow Formations .

In/near Class I air quality area: No, no class I air quality area in the area of review.

Air quality permit for flaring/venting (if productive): Yes, DEQ air quality permit required under 75-2-211.

Mitigation:

☒ Air quality permit (AQB review)

☐ Gas plants/pipelines available for sour gas

☐ Special equipment/procedures requirements

☐ Other: \_\_\_\_\_

Comments: If there is an existing pipeline for gas in the area and gas can be gathered or if no gathering system nearby associated gas can be flared under Board Rule 36.22.1220. Air quality permit required only if well is productive.

### Water Quality

(possible concerns)

Salt/oil based mud: No, freshwater, and freshwater mud system to be used only.

High water table: No high water table at this location.

Surface drainage leads to live water: Yes, closest drainage is an unnamed ephemeral , about 1/16 of a mile to the northwest from this location. Within the ephemeral drainage is a stock pond, about 3/8 of a mile to the north from this location.

Water well contamination: None, closest water well is about 3/4 of a mile to the north from this location and is a stock water well, depth of 686'.

Porous/permeable soils: No, silty sandy bentonitic soils.

Class I stream drainage: No, Class I stream drainages, nearby.

Mitigation:

☒ Lined reserve pit

☒ Adequate surface casing

☐ Berms/dykes, re-routed drainage

☐ Closed mud system

☐ Off-site disposal of solids/liquids (in approved facility)

☐ Other: \_\_\_\_\_

Comments: 500' of surface casing will be set, well below freshwater zones in nearby water wells. Adequate surface casing and BOP equipment will be set and used. Pit liner will be used in the reserve pit.

### Soils/Vegetation/Land Use

(possible concerns)

Stream crossings: No stream crossings required.

High erosion potential : No, small cut, up to 1.7' and small fill of 4.2', required.

Loss of soil productivity: None, location to be restored after drilling well, if nonproductive. If productive unused portion of drillsite will be reclaimed.

Unusually large wellsite: No, large well site 550' X 420'

Damage to improvements: Slight, surface use is cultivated land..

Conflict with existing land use/values: Slight.

Mitigation

☐ Avoid improvements (topographic tolerance)

☐ Exception location requested

☒ Stockpile topsoil

☐ Stream Crossing Permit (other agency review)

☒ Reclaim unused part of wellsite if productive

☐ Special construction methods to enhance reclamation

☒ Other Requires DEQ General Permit for Storm Water Discharge Associated with Construction Activity, under ARM 17.30.1102(28).

Comments: Access will be from existing county gravel road, Loop Road. From existing Loop Road, about 0.4 of a mile of new access will be built into this new location. Reserve pit will be lined with a minimum 12 mill liner. Drilling fluids will be freshwater and freshwater mud system. Fluids will be allowed to dry in the reserve pit. Cuttings and pit solids will be buried in the lined pit. Pit will then be backfilled with subsoil and final cover will be topsoil.

### Health Hazards/Noise

(possible concerns)

Proximity to public facilities/residences: Closest residence is about 1/2 of a mile to the east of this location. The landing strip is about 5/8 of a mile to the east of this location. The town of Sunburst, Montana is about 1.125 miles to the east from this location.

Possibility of H2S: Possible H2S from Mississippian and Duperow Formations.

Size of rig/length of drilling time: Single or double derrick drilling rig 10 to 20 days drilling time.

Mitigation:

☒ Proper BOP equipment

☐ Topographic sound barriers

☐ H2S contingency and/or evacuation plan

☐ Special equipment/procedures requirements

☐ Other: \_\_\_\_\_

Comments: Adequate surface casing cemented to surface with working BOP stack should mitigate any problems. (BOP's 3,000 psig annular, pipe and blind rams) rule 36.22.1014.

### Wildlife/recreation

(possible concerns)

Proximity to sensitive wildlife areas (DFWP identified): None identified.

Proximity to recreation sites: None identified

Creation of new access to wildlife habitat: No

Conflict with game range/refuge management: No

Threatened or endangered Species: Threatened or endangered species is the Black-footed Ferret.

Candidate species is the Sprague's Pipit. NH Tracker website list the following as species of concern: Hoary Bat, Baird's Sparrow, Golden Eagle, Ferruginous Hawk, Chestnut Collared Longspur and Long-billed Curlew.

Mitigation:

☐ Avoidance (topographic tolerance/exception)

☐ Other agency review (DFWP, federal agencies, DSL)

\_\_\_ Screening/fencing of pits, drillsite

\_\_\_ Other: \_\_\_\_\_

Comments: Private surface cultivated lands. There maybe species of concern that maybe impacted by this wellsite. We ask the operator to consult with the surface owner as to what he would like done, if a species of concern are discovered at this location.

### **Historical/Cultural/Paleontological**

(possible concerns)

Proximity to known sites None identified

Mitigation

\_\_\_ avoidance (topographic tolerance, location exception)

\_\_\_ other agency review (SHPO, DSL, federal agencies)

\_\_\_ Other: \_\_\_\_\_

Comments: Private surface cultivated lands. There maybe possible historical/cultural/paleontological sites that maybe impacted by this wellsite. We ask the operator to consult with the surface owner as to his desires to preserve these sites or not, if they are found during construction of the wellsite.

### **Social/Economic**

(possible concerns)

\_\_\_ Substantial effect on tax base

\_\_\_ Create demand for new governmental services

\_\_\_ Population increase or relocation

Comments: No concerns at this time. Well is a wildcat.

### **Remarks or Special Concerns for this site**

The well will be drilled first as a vertical pilot hole to 3664' into the Duperow Formation. Well will be logged and plugged back to 2300' and kickoff and drill a single lateral horizontal Banff Sand Formation well test, 3082'TVD/7596' MD.

### **Summary: Evaluation of Impacts and Cumulative effects**

No long term impacts expected. Some short term impacts will occur.

I conclude that the approval of the subject Notice of Intent to Drill (does/**does not**) constitute a major action of state government significantly affecting the quality of the human environment, and (does/**does not**) require the preparation of an environmental impact statement.

Prepared by (BOGC): /s/Steven Sasaki

(title:) Chief Field Inspector

Date: July 19, 2012

Other Persons Contacted:

Montana Bureau of Mines and Geology, Groundwater Information Center website

(Name and Agency)

Toole County water wells

(subject discussed)

July 19, 2012

(date)

US Fish and Wildlife, Region 6 website

(Name and Agency)

ENDANGERED, THREATENED, PROPOSED AND CANDIDATE SPECIES MONTANA  
COUNTIES, Toole County

(subject discussed)

July 19, 2012

(date)

Montana Natural Heritage Program Website

(Name and Agency)

Heritage State Rank= S1, S2, S3 T37N R3W

(subject discussed)

July 19, 2012 \_\_\_\_\_

(date)

If location was inspected before permit approval:

Inspection date: \_ \_\_\_\_\_

Inspector: \_\_\_\_\_

Others present during inspection: \_\_\_\_ \_\_\_\_\_